

S/011/60/000/003/001/001
A054/A133

The first All-Union congress on volcanology

A. Gabriyelyan, E. Sh. Shikhalibeyli (Low Caucasus); Ye. N. Goretskaya, (Tyan'-Shan'); N. I. Skhirtladze (Gruzia); T. N. Ivanova, (Tuva); V. A. Vakar, A. P. Lebedev, M. I. Rabkin, V. A. Milashev, Yu. M. Sheyman, (Siberian Platform); M. S. Nagibina (Mongolian-Okhot belt); M. I. Idikson, L. I. Krasnyy (Far-East); Yu. V. Zhegalov (Komandor island); M. V. Gzovskiy and A. Ye. Svyatlovskiy read reports on magmatism, volcanism and tectonics in general. The following participants contributed to the classification, nomenclature and terminology of volcanism: V. I. Vlodavets, V. P. Petrov, Ye. F. Maleyev, V. S. Koptev-Dvornikov, L. I. Blokhina, M. G. Lomize, M. A. Petrova, E. I. Tikhomirova, T. I. Frolova, Ye. B. Yakovleva, Ye. V. Vysovskaya, G. M. Gapeyeva, Ye. N. Goretskaya, M. L. Lur'ye, V. M. Sergiyevskiy, M. V. Tashchinina, G. M. Fremd, I. M. Speranskaya, L. G. Kvasha). A resolution was passed enumerating the most important problems in the field of volcanism: 1) Intensifying the study of volcanism, especially in relation with mineralization; 2) Surveying of volcanic formations in the Soviet Union and the regularities governing the distribution of useful minerals in connection with volcanic phenomena, 3) Studying the relations between volcanic and plutonic formations as well as those between volcanism and tectonics; 4) Development of petrography and geophysics, based on the study of the magma; 5) Surveying ore deposits of volcanic origin in geosynclines and platforms; 6) Establishing the structure of the earth's

Card 5/6

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crust in the areas of contemporary volcanism; 7) Extending the geochemical and geothermal investigations in areas of contemporary volcanism; 8) Improving the forecast of volcanic eruptions; 9) Improving the method of simulating the properties of substances and processes under increased temperature and pressure; 10) Intensifying the studies of volcanism in the solar system. In order to meet with the above requirements, surveying methods and geological organizations have to be improved. The second All-Union Congress on Volcanism will be convened in Petropavlovsk (Kamchatka). In connection with the Congress, the Academy of Sciences Armyanskii SSR published a book on "Problems on Volcanism" (500 pages) and a guide of the excursion organized during the Congress.

Card 6/6

VLODAVETS, V.I.

Sur les corses provoquant de diverses evolutions de la composition
des laves des volcans Maly Semiatchik et Karvmsky.

papers presented at the 12th General Assembly of the
IUGG, Helsinki, July 1960.

VLODAVETS, V.I.

Eleventh General Assembly of the International Volcanological
Association. Biul. Vulk. sta. no.29:56-61 '60. (MIRA 14:3)
(Volcanoes)

- VLODAVETS, V.I.

First All-Union Conference on Volcanoes. Izv. AN SSSR. Ser. geol.
25 no. 3:125-128 Mr '60. (MIRA 13:12)
(Volcanoes)

VLODAVETS, V.I., red.; DERGUNOV, I.D., red. [deceased]; IVANOV, V.V., red.;
MAKARENKO, F.A., red.; KHITAROV, N.I., red.; BARABANOV, L.N., red.;
SHEYNMAN, V.S., red. izd-va; YEGOROVA, N.F., tekhn. red.

[Problems in geothermy and the practical utilization of the
earth's heat; transactions] Problemy geotermii i prakticheskogo is-
pol'zovaniia tepla Zemli; trudy. Moskva, Izd-vo Akad. nauk SSSR.
Vol.2. 1961. 304 p. (MIRA 14:8)

1. Vsesoyuznoye soveshchaniye po geotermicheskim issledovaniyam.
(Heating) (Water, Underground)

VLODAVETS, V.I.

Preface. Trudy Lab. vulk. no.20:3-4 '61.
(Volcanic ash, tuff, etc.)

(MIRA 14:11)

VLODAVETS, V.I.

Twelfth General Assembly of the International Association of
Volcanology. Izv. AN SSSR. Ser. geol. 26 no. 4:113-116 Ap '61.
(MIRA 14:5)
(Volcanoes—Congresses)

VLODAVETS, V. I.

"Les tufolaves et les ignimbrites sur le territoire de l'URSS."

Presented at the Symposium on Ignimbrites and Hyaloclastites, *Japan*,
Catania, Sept. 20-23, 1961

VLODAVETS, V.I.

The problem of tuff lavas and ignimbrites. Trudy Lab. vulk.
no.20:11-23 '61. (MIRA 14:11)

1. Laboratoriya vulkanologii AN SSSR.
(Volcanic ash, tuff, etc.)

VLODAVETS, V.I.; RUDICH, K.N.

Symposium on welded tuffs in the Soviet Union. Sov.geol.
4 no.12:138-142 D '61. (MIRA 15:2)

1. Geologicheskii institut AN SSSR.
(Volcanic ash, tuff, etc.)

VLIOAVETS, V.I.

International symposium on ignimtrites and hyaloclastic rocks.
Izv.AN SSSR. Ser.geol.27 no.2:126-128 F '62. (MIRA 15:1)
(Ignimbrite—Congresses)
(Glass)

VLODAVETS, V.I., prof.

International Symposium on Volcanology. Vest. AN SSSR 32 no.10:85-
86 0 '62. (MIRA 15:10)

(Volcanoes—Congresses)

VLODAVETS, Vladimir Ivanovich; RUDICH, K.N., otv. red.; MARENINA, T.Yu.,
red. 1zd-va; RYLINA, Yu.V., tekhn. red.

[Volcanism of Kamchatka and some other areas of the U.S.S.R.]
Vulkanizm Kamchatki i nekotorykh drugikh raionov SSSR. Mo-
skva, AN SSSR, 1963. 250 p. (MIRA 16:9)

1. AN SSSR. Laboratoriya vulkanologii.
(Rocks, Igneous)

VLODAVETS, V.I.

Problem of ignimbrites and hyaloclastic rocks at the International
Symposium of Volcanology, Italy. Biul.Vulk.sta. no.33:80-86
'62. (MIRA 15:12)

(Petrology--Congresses)

VLONDAVETS, V.I.

Twelfth General Assembly of the International Association of
Volcanology. Biul.Vulk.sta. no.33:71-79 '62. (MIRA 15:12)
(Volcanoes)

VLODAVETS, V.I.; GORSHKOV, G.S.; NABOKO, S.I.; PIYP, B.I.

Development of volcanologic studies in the U.S.S.R. Geol. i geofiz.
no.11:24-27 '62. (MIRA 16:3)

1. Laboratoriya vulkanologii, Moskva.
(Volcanoes)

VLODAVETS, V.I., red.; GORSHKOV, G.S., red.; LEBEDEV, A.P., red.;
MALKHASYAN, E.G., red.; MKRTCHYAN, S.S., akad., red.; NABOKO,
S.I., red.; USTIYEV, Ye.K., red.; SHIRINYAN, K.G., red.;
MAKENINA, T.Yu., red. izd-va; NOVICHKOVA, N.D., tekhn. red.;
ZUDINA, V.I., tekhn. red.

[Problems of volcanism] Voprosy vulkanizma; trudy. Moskva, Izd-
vo Akad. nauk SSSR, 1962. 450 p. (MIRA 15:5)

1. Vsesoyuznoye vulkanologicheskoye soveshchaniye. 1st, Erevan,
1959. 2. Laboratoriya vulkanologii Akademii nauk SSSR (for
Vlodavets, Gorshkov, Naboko). 3. Institut geologii rudnykh
mestorozhdenii, petrografii, mineralogii i geokhimii Akademii
nauk SSSR (for Lebedev, Ustiyev). 4. Institut geologicheskikh
nauk Akademii nauk Armyanskoy SSR (for Malkhasyan, Shirinyan).
5. Akademiya nauk Armyanskoy SSR (for Mkrtchyan).
(Volcanoes)

VLODAVETS, V.I., otv. red.; MARENINA, T.Yu., red.izd-va

[Petrochemical characteristics of young volcanism] Petro-
khimicheskie osobennosti molodogo vulkanizma; materialy sim-
poziuma. Moskva, Izd-vo Akad. nauk SSSR, 1963. 264 p.

(MIRA 16:6)

1. Simpozium, posvyashchenny pamyati akademika A.N.Zavaritskogo,
1962. 2. Sibirskoye otdeleniye Akademii nauk SSSR, Laboratoriya
vulkanologii (for Vladovets).

(Rocks, Igneous--Analysis)

VLODAVETS, V.I.

Neogene and Quaternary volcanic provinces in France. Izv. AN
SSSR Ser. geol. 30 no.18134-135 Ja '65 (MIRA 18:2)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR, Petropavlovsk-Kamchatskiy.

VLODAVETS, V.I.

On the term "ignimbrite." Izv. AN SSSR, Ser.geol. 29 no 6:42-49
Je '64. (MIRA 18:2)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR, Petropavlovsk-na-Kamchatke.

VLODAVETS, V.V.; MIRZAYEV, P.M.

Reviews. Mikrobiologiya 31 no.1:184-188 Ja-F '65.

(MIRA 18:7)

VLODAVETS, V. V.

Card 1 of 2

"Khirurgiya" No 3, p 79

"Review of N. G. Belen'kiy's Book 'Species-Nonspecific Serum (Its Biological Properties and Utilization,'" V. V. Vlodavets, Moscow

USSR/Medicine - Species-Nonspecific Serum Mar 52

Species-nonspecific cattle serum obtained according to Belen'kiy's method is devoid of toxogenic and anaphylogenic properties and can therefore be safely transfused to human patients. The protein of this serum has been found to be completely assimilable upon intravenous administration and is therefore suitable for parenteral feeding. The effect of the

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USSR/Medicine - Species-Nonspecific Serum Mar 52
(Contd 1)

serum is one of stimulating hemopoiesis by means of "hemocactin." This hemopoietic effect is greatest if the cattle serum is taken 24 hrs subsequently to extraction of 50% of the animal's blood. This serum excels over any artificial blood substitutes in the speed with which normal blood pressure is restored after serious losses of blood. It also gives good results when administered to animals in a state of shock. The results of 2,000 injections given, some of them repeated injections, prove that the new serum is very promising. In shock (traumatic or from burns) the serum quickly

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Card 2 of 2

USSR/Medicine - Species-Non-specific Serum Mar 52
(Contd 2)

Increases the blood pressure and the patients rapidly come out of shock. Healing of wounds covered with transplanted skin, of slowly healing wounds, and ulcerations as well as of bone fractures takes place quickly due to the regenerative effect of the serum. A wide field of possibilities opens up in surgery, especially in operations on the oral cavity, the esophagus, and the digestive tract due to the possibility of parenteral feeding. There are still reactions (in 10-12% of the cases) of varying severity, but continued work by the author and his co-workers should reduce their number.

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USSR/Medicine - Species-Non-specific Serum Mar 52
(Contd 3)

Also studied are the best ways of storage. In liquid form the serum can be kept without loss of any of its effectiveness for 2 yrs and when dried it will keep 5 yrs. It should be of great help not only in large hospitals but also in out-of-the-way village districts. Book was published by Sov Nayka, 1950, 263 pp.

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VLODAVETS, V. V.

Vlodavets, V. V. -- "Certain Colloid-Chemical Properties of a Bacterial Aerosol." Military Faculty, Central Inst for the Advanced Training of Physicians, Moscow, 1956. (Dissertation For the Degree of Candidate in Medical Sciences).

So: Knizhnaya Letopis', No. 11, 1956, pp 103-114

VLODAVETS, V.V.

Decontamination of air in booths by ultraviolet rays. Lab.delo 2
no.6:19-20 N-D '56. (MIRA 9:12)

1. Iz laboratorii sanitarnoy bakteriologii (zav. - prof. L.I.Mats)
Instituta obshchey i kommunal'noy gigiyeny Akademii meditsinskikh
nauk SSSR, Moskva.

(ULTRAVIOLET RAYS)
(MICRO-ORGANISMS)

(AIR—PURIFICATION)

VLODAVETS, V.V.

Antagonists of the Mucorales. Antibiotiki 1 no.3:49-50 My-Je '56.

(MLRA 9:10)

1. Laboratoriya sanitarnoy bakteriologii (zav. prof. L.I.Mats)

Instituta obshchey i kommunal'noy gigiyeny AMN SSSR.

(MUCOR,

antag. (Rus))

VLODAVETS, V.V.

Using rosolic agar in mycological research. Bot.zhur.41 no.4:
537-539 Ap '56.
(MIRA 9:9)

1. Institut obshchey i kommunal'noi gigiyeny Akademii meditsinskikh
nauk SSSR, Moskva.
(Agar) (Rosolic acid) (Fungi)

VLODAVETS, V.V., kandidat meditsinskikh nauk.

Mold fungi in the air of Moscow. Priroda 45 no.12:95-97 D '56.
(MLBA 10:2)

1. Institut obshchey i kommunal'noy gigiyeny Akademii nauk SSSR.
(Moscow--Air--Bacteriology) (Molds (Botany))

VLODdavETS, V. V.

"Methods of Investigating the Microflora of Atmospheric Air,"
by V. V. Vlodavets, Laboratory of Sanitary Bacteriology, In-
stitute of General and Communal Hygiene, Academy of Medical
Sciences USSR, Laboratornoye Delo, Vo 3, No 1, Jan/Feb 57, pp
41-43

The author discusses several problems with which bacteriologists are faced in connection with air analyses. He mentions that no single apparatus can detect all the microflora present in atmospheric air or the air of closed rooms, and that different quantities of microflora are collected with different apparatuses. Success in air sampling, it is pointed out, depends on the construction of the apparatus used, the dispersion of bacterial aeroplankton, and other factors. The Rechmen-skiy bacterial separator and the Krotov apparatus are recommended as the best equipment for this purpose.

The article gives advantages and disadvantages of various cultur-ing methods in consideration of the fact that the same conditions are not favorable to the growth of all bacteria. It notes that data on the number of viable microorganisms in a given volume of air is always relative, and that strict adherence to standard technique is requisite to obtaining comparable results. It states that specific types of apperatus, standard conditions for collecting samples, specific media, and uniform culturing methods should be used. Observations showed that the greatest number of atmospheric microorganisms is detected when sam-ples are cultured on meat-peptone or sugar agar at 20-22° for 4-5 days.

54M.1374

The author suggests that media should be selected according to the subject under study and gives examples (Happo medium for streptococcus, tellurium medium for diphtheria bacillus, and Bordet-Gengou medium for whooping cough bacillus).

Optimum conditions for studying the bacterial colonies collected are discussed. The author recommends collection of 50-100 liters of air for sampling with the Krotov apparatus when the bacterial content of the air is low, 25-40 liters when the bacterial content is average, and 10-20 liters when the bacterial content is high.

When samples are seeded on a liquid medium (with the Rechmenskiy or D'yakanov apparatus and the liquid is subsequently seeded on a solid medium, the number of colonies most suitable for study is 25-50 per dish. The following volumes of air are proposed for collection with the Rechmenskiy bacterial sampler: 100-150 liters in areas of low bacterial concentration and 50 liters for high concentration.

54M-1377

The article includes a brief discussion of synthetic bacterial aerosols in special rooms and chambers for investigating the properties of atmospheric bacteria and studying the effects of various bactericidal agents on them. It points out that certain difficulties are encountered when the number of colonies in the experimental sample exceeds 4,000.

The author concludes that, while it is still too soon to consider developing standards for purity of atmospheric air (which would require taking into account climatic, meteorological, and other factors), such standards are foreseeable in the near future for special rooms, i.e., operating rooms, blood transfusion stations, and rooms for transferring sterile pharmaceutical and immunological preparations into ampules.

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SUM-1374

VLODAVETS, V.V.; GUSHCHINA, N.B. (Moskva)

Air disinfection by ultraviolet rays in laboratories. Vrach.delo
no.4:399-401 4p '57. (MIRA 10:7)

1. Institut obshchey i kommunal'noy gigiyeny AMN SSSR
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)
(AIR--PURIFICATION)

VLODAVETS, V.V.

AUTHOR: Vlodavets, V.V., Candidate of Medical Sciences

26-12-35/49

TITLE: An Effective Method of Studying the Microflora of the Air
(Effektivnyy metod izucheniya mikroflory vozdukha)

PERIODICAL: Priroda, 1957, # 12, p 113 (USSR)

ABSTRACT: The author describes the technology of water soluble filters as developed by American scientists, and in the USSR by the Ukrainian scholar A.Ye.Vershigora. These filters are intended for the study of the air's microflora, and are used for obtaining micro-organisms by drawing air through them. Thereupon the filter is solved in water and investigations are conducted in the liquid. The filtration method has proved to be the most effective as it can be used for bacteriological and mycological studies of the air also at low temperatures.

ASSOCIATION: Institute of General and Public Hygiene of the Academy of Medical Sciences of the USSR, Moskva (Institut obshchey i kommunal'noy gigieny Akademii meditsinskikh nauk SSSR, Moskva)

AVAILABLE: Library of Congress

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VLADAVETS, V.V., kandidat meditsinskikh nauk

Comparative rating of methods for the bacteriological analysis of indoor air [with summary in English]. Gig. i san. 22 no.1:51-54
Ja '57. (MLRA 10:2)

1. Iz Instituta obshchey i kommunal'noy gigiyeny AMN SSSR

(AIR POLLUTION

bacteriol. analysis of air in closed premises,
comparison of methods (Rus))

(BACTERIA

same)

VLODAVETS, V.V.; GUSHCHINA, N.B.

Air disinfection in laboratories by ultraviolet rays. Zhur.
mikrobiol. epid. i immun 28 no.2:140-141 F '57 (MLRA 10:4)

1. Iz Instituta obshchey i kommunal'noy gigiyeny AMN SSSR.
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)
(AIR--PURIFICATION)

VLODAVETS, V.V., ZUYKOVA, Ye.Yu., MOTOVA, M.A.

Comparative evaluation of various methods of bacteriological
analysis of the air at low temperatures [with summary in English]
Mikrobiologiya 27 no.5:646-651 S-O '58 (MIRA 11:12)

1. Institut obshchey i kommunal'noy gigiyeny AMN SSSR.
(AIR, microbiology,
in cold temperature, comparison of various methods
of determ. (Rus))
(COLD,
air microbiol. in cold temperatures, comparison of
determ. technics (Rus))

~~VLADAVETS, V.V.~~

Symposium on bacterial aerosols and air-borne infections at the 57th
general assembly of the American Bacteriological Society. Zhur.
mikrobiol.epid. i immun. 29 no.7:162-163 J1'58 (MIRA 11:8)
(AIR--BACTERIOLOGY)

VLODAVETS, V.V.

Problem of the mechanism of dissemination of air-borne infections.
Zhur. mikrobiol. epid. i immun. 29 no.9:73-78 S '58 (MIRA 11:10)

1. Iz Instituta obshchey i kommunal'noy gigiyeny imeni Sysina AMN SSSR.
(AIR, microbiology,
transm. of air-borne infect. (Rus))
(COMMUNICABLE DISEASES, transm
air-borne (Rus))

VLADAVETS, V.V.

~~Electric~~ charges of particles and droplets of a bacterial aerosol.
Biofizika, 4 no.3:360-364 '59. (MIRA 12:7)

1. Tsentral'nyy institut usovershenstvovaniya vrachey, Moskva.

(ABROSOIS,

electric charge of particles & drops of bact aerosols (Rus))

(BACTERIA,

same)

VLADAVETS, V. V., ANDREYEVA, O. V., FISHER, N. M., ALYUGHAREV, G. G.,
BAYER, G. A., POPOVA, T. I., KERASHEVA, S. I., IGNATOVICH, Z. A.,
RAZUMOV, A. S., KUCHENKO, N. G., PERTSEVSKAYA, N. I., TALAYEVA, YU. G.

"Modern problems of sanitary bacteriology in the solution
of problems of communal hygiene."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

GAYDAMOVICH, S.Ya.; VLODAVETS, V.V.; OBUKHOVA, V.R.

A method for recovery of the influenza virus in the aerosol drop phase. Report No.1: Effectiveness of recovery of the influenza virus with D'iakonov's apparatus and soluble filters from gelatin foam. Vop.virus. 4 no.4:396-401 J1-Ag '59. (MIRA 12:12)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR i Institut obshchey i kommunal'noy gigiyeny imeni A.N. Sysina AMN SSSR, Moskva. (INFLUENZA VIRUSES, culture)

VLODAVETS, V.V.

Rapid method for the determination of bacterial sensitivity to
antibiotics. Antibiotiki 4 no.5:76-79 S-0 '59. (MIRA 13:2)

1. Laboratoriya sanitarnoy bakteriologii (zav. - prof. L.I. Mats)
Instituta obshchey i kommunal'noy gigiyeny imeni A.N. Sysina AMN
SSSR.

(ANTIBIOTICS pharmacol.)

VLODAVETS, V.V.; MATS, L.I.

Characteristics of air microflora in Moscow and the effect of meteorological factors on it. Mikrobiologiya 28 no.4:574-580 J1-Ag '59.
(MIRA 12:12)

1. Institut obshchey i kommunal'noy gigiyeny im. A.N. Sysina AMN SSSR.
(WEATHER eff.)
(AIR microbiol.)

VLODAVETS, V.V.

Changes in the specific composition of the air microflora following
disinfection by ultraviolet rays. Mikrobiologiya 28 no.5:772-776
S-O '59. (MIRA 13:2)

1. Institut obshchey i kommunal'noy gigiyeny im. A.N. Sysina AMN SSSR.
(AIR microbiol.)
(DISINFECTION)
(ULTRAVIOLET RAYS)

VLODAVETS, V.V.

Modern methods for a bacteriological analysis of the air. Zhur.
mikrobiol., epid. i immun. 30 no. 12: 48-54 D '59. (MIRA 13:5)

1. Iz Instituta obshchey i kommunal'noy gigieny imeni Sysina
AMN SSSR.
(AIR microbiol.)

VLODAVETS, V.V., kand.med.nauk

Some colloidal chemical properties of bacterial aerosol. Voen.-
med. zhur. no.3:82-84 Mr '60. (MIRA 14:1)
(AIR—MICROBIOLOGY)

VLODAVETS, V.V.; GAYDAMOVICH, S.Ya.; OBUKHOVA, V.R.

Technique for the detection of influenza virus in the drop phase of aerosols. Report No. 2: Effectiveness of detecting the influenza virus with Rechmenskii's bacterial recovery apparatus, Vershigora's barbotage apparatus, and Shafir's aerocentrifuge. Vop. virus. 5 no. 6:670-675 N-D '60. (MIRA 14:4)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR i Institut obshchey i kommunal'noy gigiyeny imeni A.N. Sysina AMN SSSR, Moskva.

(INFLUENZA) (AEROSOLS)

VLODAVETS, V.V.

~~Experimental model of the dust phase of a bacterial aerosol. Zhur.~~
mikrobiol. epid. i immun. 31 no. 10:56-62 0 '60. (MIRA 13:12)

1. Iz TSentral'nogo instituta usovershenstvovaniya vrachey.
(STAPHYLOCOCCUS) (AEROSOLS)

A
VLODVETS, V.V., GAYDANOVICH, S.L.

"Comparison of methods used for detection of influenza virus in aerosol state."

Report submitted for the 1st Intl. Congress on Respiratory Tract Diseases of Virus and rickettsial Origin. Prague, Czech. 23-27 May 1961.

DANTSIG, N.M.; VLODAVETS, V.V.; KRICHAGINA, N.B.

Ultraviolet rays in the prevention of air droplet infections.
Vost.AMN SSSR 16 no.7:13-20 '61. (MIRA 14:7)

1. Institut obshchey i kommunal'noy gigiyeny imeni A.N.Sysina
AMN SSSR.

(ULTRAVIOLET RAYS) (COMMUNICABLE DISEASES—PREVENTION)
(AIR—PURIFICATION)

VLODAVETS, V.V., kand.med.nauk; ZUYKOVA, Ye.Yu., mladshiy nauchnyy sotrudnik;
KICHENKO, M.G., kand.med.nauk; MATS, L.I., prof.; NATANSON, G.L.,
prof. [deceased]; PERTSOVSKAYA, M.I., kand.biologicheskikh nauk;
PETRYANOV, I.V.; RAZUMOV, A.S., prof. [deceased]; SADOVSKIY, B.F.,
kand.khimicheskikh nauk

Use of a new type of "microfil" filters for the concentration and
indication of bacteria from the air, water and soil. Gig. i san. 27
no.3:51-55 Mr '62. (MIRA 15'4)

1. Iz Instituta obshchey i kommunal'noy gigiyeny imeni A.N.Sysina
AMN SSSR i Fiziko-khimicheskogo instituta imeni L.Ya.Karpova.
2. Chlen-korrespondent AN SSSR (for Petryanov).
(AIR—MICROBIOLOGY) (WATER—MICROBIOLOGY)
(SOILS—MICROBIOLOGY) (BACTERIOLOGY—EQUIPMENT AND SUPPLIES)

VLODAVETS, V.V.

Rapid and simple method of separating out a bacterial suspension.
Lab. delo 8 [i.e.9] no.1:46-47 Ja '63. (MIRA 16:5)

1. Laboratoriya sanitarskoy bakteriologii (zav.-prof. L.I.Mats)
Instituta obshchey i kommunal'noy gigiyeny imeni A.N. Sysina
AMN SSSR.

(BACTERIOLOGY--TECHNIQUE)

GAYDAMOVICH, S.Ya.; VLODAVETS, V.V.

Detection of minimal concentration of influenza virus in the
droplet phase of an aerosol. Vop. Virus. 8 No.3:349-353
My-Je'63. (MIRA 16:10)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR i
Institut obshchey i kommunal'noy gigiyeny imeni A.N. Sysina
AMN SSSR. Moskva.
(INFLUENZA — VIRUSES) (AEROSOLS)

VLODAVETS, V.V.

Determination of the viability of bacteria in aerosols. Zhur.
mikrobiol., epid. i immun. 40 no.4:46-49 Ap '63. (MIRA 17:5)

1. Iz Instituta obshchey i kommunal'noy gigiyeny imeni Sys'ina
AMN SSSR.

SADOVSKIY, B.F.; VLODAVETS, V.V.; ZUYKOVA, Ye.Yu.; MATS, L.I.;
PETRYANOV, I.V.

Use of a new "mikrofil" type filter for the indication of
bacterial aerosols. Mikrobiologiya 32 no.2:323-326 Mr-Ap '63.
(MIRA 17:9)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni
Karpova i Institut obshchey i kommunal'noy gigiyeny imeni Sysina
AMN SSSR.

ACCESSION NR: AP4022478

S/0220/64/033/001/0091/0096

AUTHOR: Vlodavets, V. V.

TITLE: Bacterial aerosol dynamics in dust and drop phases

SOURCE: Mikrobiologiya, v. 33, no. 1, 1964, 91-96.

TOPIC TAGS: staphylococcus albus bacterial aerosol, aerosol drop phase, aerosol dust phase, bacterial aerosol dynamics, bacterial suspension preparation, increased relative humidity effect, decreased relative humidity effect, bacterial aerosol concentration change

ABSTRACT: Bacterial aerosols of staphylococcus albus (strain 284) isolated from air were formed in a 250 l static type chamber. For drop aerosol, a staphylococcus suspension containing 200 million bacteria/ml was dispersed and then more finely dispersed to form a polydisperse aerosol with basic mass of the droplets ranging from 2 to 10 microns. For dust aerosol, dust was extracted from blankets, filtered twice, and sterilized at 150-160°C for 2 hrs. Then 0.8 to 1.0 g of dust was mixed with a staphylococcus suspension (40 to 50 billion/ml) in a Petrie cup and dried at 37°C for 18 to 20 hrs.

Card 1/3

ACCESSION NR: AP4022478

After the dried dust was scraped off the cup, 20 to 30 mg of dust were dispersed to form a dust aerosol with the basic mass of particles ranging from 3 to 40 microns. Aerosol bacterial concentration change was determined by settling of bacteria on Petrie cups after 10 min exposure. After the bacterial aerosol was formed, air test samples were taken 10, 20, 30 min and each hour for 8 hrs, and the number of bacteria colonies in each cup was counted. Findings show that bacterial concentrations of drop and dust aerosols gradually decrease after dispersion, but viable staphylococci may be found in the air as long as 6 to 8 hrs later. A staphylococcus bacterial suspension prepared in distilled water stays in air the longest time, and a bacterial suspension prepared in 0.85% NaCl stays in air the shortest time. Bacterial suspensions prepared in 0.5% NaCl or 0.85% NaCl with horse serum occupy an intermediate position. A bacterial aerosol is kinetically less stable in the dust phase than in the drop phase. The difference is related to the colloid properties of dust particles, their size and hygroscopicity. Decreased relative humidity increases the length of time staphylococci remain in dust or drop aerosol phases, and increased relative humidity promotes the settling of bacterial aerosol droplets or dust particles and thereby reduces

Card

2/3

ACCESSION NR: AP4022478 .

aerosol concentration. Orig. art. has: 2 tables and 2 figures.

ASSOCIATION: Institut obshchey i kommunal'noy gigieny* im. A. N.
Sy*sina AMN SSSR (Institute of General and Communal Hygiene AMN SSSR)

SUBMITTED: 09Aug62

DATE ACQ: 09Apr64

ENCL: 00

SUB CODE: LS

NR REF SOV: 006

OTHER: 003

Card 3/3

TOPIC TAGS: MICROORGANISMS; ALTITUDE; FLIGHT

21
20

Abstract: The authors made 37 flights on a Li-2 airplane to study the distribution and seasonal fluctuations in the population of microflora at altitudes ranging from 500 to 6,500 m. The flights were in a radius of 30 km from Moscow, mainly to the east and southwest over wooded localities. In part cultivated in nutrient media, in part observed, bacteria in detail, was found to be suitable for the purpose even at subzero temperatures.

only due to the fact that the clouds are commonest at this altitude. To serve as control the authors have also made a series of extraflights of viable bacteria. At higher altitudes the bacterial population is small, but even at 5,000-6,500 m viable bacteria were frequently found.

Card 1/2

L 24691-65
ACCESSION NR: AP5004683

An increase in altitude is accompanied by both a quantitative and qualitative change in composition of the microflora, as the number of Gram-positive spore and some pigment bacteria increased.

There are marked seasonal variations in the bacterial count. It is highest in the summer, lowest in the winter. It is greatly affected by meteorological factors as well as by soil moisture and snow since most of the microorganisms originate in soil. Orig. art. has 2 tables.

ASSOCIATION: Institut obshchey i kommunal'noy gigieny im. A. N. Sysina AMN, SSSR
(Institute of General and Communal Hygiene, AMN SSSR)

SUBMITTED: 08Jun63

ENCL: 00

SUB CODE: LS

NO REF SOV: 008

OTHER: 019

JPRS

Card 2/2

VLCDAVETS, V.V.

Possibility of using *Bacterium prodigiosum* as an experimental model of bacterial aerosol. Zhur. mikrobiol., epid. i immun. 41 no.11:65-68 '65. (MIRA 18:5)

1. Institut obshchey i kommunal'noy gigiyeny imeni Sysina AMN SSSR.

SOURCE CODE: UR/0016/66/000/009/0030/0034

ACC NR: AP6032243

AUTHOR: Vlodavets, V. V.; Dmitriyeva, R. A.

ORG: Institute of General and Community Hygiene im. Sybin, AMN SSSR, Moscow
(Institut obshchey i kommunal'noy gigiyeny AMN SSSR)

TITLE: Viability of respiratory viruses in the air

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 30-34

TOPIC TAGS: virus, virus aerosol, influenza ~~vi~~ virus, ~~type-5~~ adenovirus, virus
viability, AEROSOL, VIRUS DISEASE, ATMOSPHERIC HUMIDITY

ABSTRACT: The effects of variable relative humidity on the viability of
Al, Pan, and type-5 virus aerosols were studied. At low
relative humidity the influenza viruses survived longest, while
at high humidity the type-5 adenovirus survived longest. The
chemical composition of the aerosol particles also affected
viral viability. Virus-containing liquids were dispersed into
500-2 closed chambers for two minutes by an atomizer which
delivered 0.16 ml/min. The average diameter of the droplets
varied between 0.8-0.12 microns. Air samples were withdrawn
at intervals from five min to six hr after introduction of the
aerosol, and applied to suitable media which was then used to

UDC: 576.858.75.095.1

Card 1/2

Card 3

CIA-RDP86-00513R0018603200

ACC NR: AP6032243

SOURCE CODE: UR/0016/66/000/009/0030/0034

AUTHOR: Vlodavets, V. V.; Dmitriyeva, R. A.

ORG: Institute of General and Community Hygiene im. Sysin, AMN SSSR, Moscow
(Institut obshchey i kommunal'noy gigiyeny AMN SSSR)

TITLE: Viability of respiratory viruses in the air

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 30-34

TOPIC TAGS: virus, virus aerosol, influenza ~~is~~ virus, ~~type-5~~ adenovirus, virus
viability, *AEROSOL, VIRUS DISEASE, ATMOSPHERIC HUMIDITY*

ABSTRACT: The effects of variable relative humidity on the viability of Al, Pan, and type-5 virus aerosols were studied. At low relative humidity the influenza viruses survived longest, while at high humidity the type-5 adenovirus survived longest. The chemical composition of the aerosol particles also affected viral viability. Virus-containing liquids were dispersed into 500-2 closed chambers for two minutes by an atomizer which delivered 0.16 ml/min. The average diameter of the droplets varied between 0.8—0.12 microns. Air samples were withdrawn at intervals from five min to six hr after introduction of the aerosol, and applied to suitable media which was then used to

Card 1/2

UDC: 576.858.75.095.1

ACC NR: AP6032243

inoculate tissue cultures, to observe the cytopathic effect. In other experiments the relative humidity was adjusted from 18% to 80% in the various chambers. The most rapid inactivation of influenza viruses occurred at 60—70% humidity, while adenoviruses were most rapidly inactivated at 37-56% humidity. In most cases viability dropped sharply after one or two hr, regardless of humidity. The effect of the aerosol dispersion process was not studied. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 08Jul65/ ORIG REF: 005/ OTH REF: 010/

Card: 2/2

VLODAVSKAYA, M.

Mechanical aids of man ("The engine" by M. Levin. Reviewed by
M.Vlodavskaya).

(Engines) (Levin, M.)

VLODAVSKAYA, M.

The world of new technology ("The struggle for speed" by B. Liapunov.
Reviewed by M. Vlodavskaya). Znan. sila 32 no.3:46 Mr '57.
(Speed) (Liapunov, B.) (MLRA 10:6)

VLODRAVSKY, T-L

4

Intermittent action, cont'd

TITKOV, N.P.; BOGDANOVA, Z.S.; GALAKTIONOVA, K.N.; KUROVA, M.D.; LAKOTA, B.M.; OZOLIN, L.T.; Prinimali uchastiye: CHRKOVA, K.I.; ASHITKOV, Yu.R.; SMIRNOV, Ye.A.; PLATUNOV, A.A.; GALICH, V.M.; PATKOVSKAYA, N.A.; VLODAVSKIY, I.Kh.; GORLOVSKIY, S.I.

Outlook for introducing the flotation of ferrous metal ores.
Gor. zhur. no.9:5/-62 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
mekhanicheskoy obrabotki poleznykh iskopayemykh, Leningrad.
(Flotation) (Iron ores) (Manganese ores)

VLODAVSKIY, I. KH.

DECEASED

1963/1

c. 1961

METALLURGY

See ILC

25

5

Paving Blocks from Blast-Furnace Slag. I. B. Vlodavskii.
(Metal, 1947, vol. 7, pp. 940-941 [in Russian]; Cement-Ab-
stracts, 1948, vol. 43, June 10, col. 4197). Road paving
blocks are made of blast-furnace slag poured directly from
the slag thimble into prepared moulds. Details of the
operation are given.

ASH-31A METALLURGICAL LITERATURE CLASSIFICATION

FROM SYMBOL	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
TO	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
COMMON ELEMENTS																										COMMON VARIANTS INDEX																									
<p>Ca-</p> <p>Paving blocks from blast-furnace slag. I. S. Volavskii. Stal 7, 940-1(1947).—Road paving blocks are made of blast-furnace slag poured directly from the slag thimbles into prepd. molds. Details of the operation are given. M. Horsch</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
<p>GROUPS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52</p>																																																			

VLODAVSKIY, M.I.

DECEASED

c 1961

1962/
5

SEE ILC.

RAILROADS

21

EA

VLDDAVSKIY, V. Ye.

Anthracite with low ash content. V. E. Vladavskii.
 Ugol 1935, No. 120, 106-R.—Anthracite was cleaned by
 means of flotation with CaCl_2 and ZnCl_2 so as to leave less
 than 1% ash, thus permitting the incorporation of some
 anthracite into the anodes used in the Al industry and
 prepared mainly from petroleum coke. The latter,
 because of its brittleness, cannot be used alone, although
 its ash content is very low. A. A. Bohtlingk

ASM-SEA METALLURGICAL LITERATURE CLASSIFICATION

(L)

21

Anthracite with low ash content. V. E. Vlodavskii.
Ugol 1935, No. 120, 108-R.—Anthracite was cleaned by
means of flotation with CaCl_2 and ZnCl_2 so as to leave less
than 1% ash, thus permitting the incorporation of some
anthracite into the anodes used in the Al industry and
prepared mainly from petroleum coke. The latter,
because of its brittleness, cannot be used alone, although
its ash content is very low. A. A. Eisehtlingk

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

Vladavskiy, V. Ye.

Concentrating crude anthracene by the N. A. Nikol'ski method. *V. E. Vladavskiy. Novosti Neftyanoy Khimii*, No. 10, 4-6(1938).—A crude product contg. not less than 12% anthracene, and not more than 25% H₂O and 30% carbazole was heated with "heavy benzene" in a conical lead-lined and jacketed agitator to 70-80° for 4-6 hrs. The ratio of crude anthracene to "heavy benzene" was 1.4-1.5. The mixt. was then treated with 60% H₂SO₄, first with 2-4% and then 0-8% of acid; each time the acid sludge was discharged and the treating temp. was not allowed to exceed 90°. By the action of the acid, carbazole is combined with coumarone. The soln. was finally cooled with H₂O and neutralized with caustic or soda. The anthracene was crystd. at 35°, filtered and centrifuged and the crystals were washed with the "arylene fraction" and hot water and finally dried with air. The product contains 55-65% anthracene. The "heavy benzene" was recovered from the filtrate by heating to 240-50°. The carbazole-coumarone tar can be used as a lacquer, etc. The acid sludge can be converted into (NH₄)₂SO₄ or it can be used for the extn. of pyridine and coal-tar oils. One ton of the crude anthracene yields about 100 kg. of anthracene (75%), 300 kg. carbazole-coumarin resin, 800 kg. solvents, 400 kg. oil and 500 kg. naphthalene; the losses amount to about 10%. A. A. B.

VLODIMIROVA, Ye. [Uladzimirava, E.]

It is easy for you, Hanna Trushko, but how disgraceful. Rab. 1
sial. 36 no. 11:22-23 H '60. (MIRA 13:11)
(Minsk--Delinquent woman)

SOCHIVKO, L.F.; BOGOTAVLENSKAYA, N.A.; BELYSHEV, A.D.; VLODINA, N.V.

FFS-02 photophonestimulator. Med. prom. 17 no.9:42-50 8'63.
(MIR 17:5)

1. Samostoyatel'noye konstruktorskoye tekhnologicheskoye byuro
"Biofizpribor".

VODOLATSKIY, M.P.; MALAKHOV, L.I.

Effect of surgical intervention in the maxillofacial region
on the state of protein fractions and changes in the stability
of the colloids of blood serum. Trudy 1-go MMI 44:156-160 '65.
(MIRA 18:12)

1. Iz kafedry khirurgicheskoy stomatologii (zav.- dotsent M.M.
Slutskaya) Stavropol'skogo gosudarstvennogo meditsinskogo instituta
(rektor - dotsent V.Yu. Pervushin).

NIKOLAYEV, V.; KROSHNEV, A. (Temir-Tau); VLODOV, P., inzh. (Ostrogzhsk, Voronezhskoy obl.); BOGDANOV, A. (Arkhangel'skaya obl.); ZHEMOCHKIN, G.; RENKOV, V. (Riga); KALININ, V. (Riga); GVASALIYA, Sh.; DIDIK, A. (Lakhdenpokh'ya, Karel'skoy ASSR); SINEL'NIKOV, A.

Advice of specialists. Za rul. 20 no.12:20-21 D '62. (MIRA 15:12)
(Motor vehicles)

VODYANIK, P.F.

Controlling gas pressure at a group point in a gas
condensate field. Gaz.delo no.11:8-11 '65.

(MIRA 19:1)

1. Institut gaza, Kiyev.

DERBAREMDIKER, P.Z.; VODYANYUK, S.O.; PAVLOVSKAYA, L.V. [Pavlovskaya, L.V.]

Use of oleinless emulsions for the oiling of wool blends in the
manufacture of blankets. Leh. prom. no.4:39-41 O-D '65.

(MIRA 19:1)

FAVOROV, A.M.; VLOH, V.G.

The medium and the controlled morphogenesis of hybrids
among potato species. Studii cerc biol s. bot 16 no. 4:
329-335 '64.

1. Institute of Agricultura and Zootechny of the U.S.S.R.
Western regions. 2. Corresponding Member of the Academy of
Sciences of the U.S.S.R.

VLOKH, I.P.

Increasing the rate of mining copper pyrite ore bodies with
slice caving. Zap.Len.gor.inst. 36 no.1:54-62 '58.
(MIRA 12:4)

(Copper mines and mining)

(Mine timbering)

VLOKH, M.M., nachal'nik.

Remarks of a boilermaker. ("Technology of locomotive boiler construction."
M.S. Ptuskin, N.F. Sosnovenko. Reviewed by M.M. Vlokh.) Vest.mash. 33 no.
4:89-90 Ap '53. (MLRA 6:5)

1. Tekhnologicheskoye byuro kotlostroeniya Voroshilovgradskogo parovo-
stroitel'nogo zavoda.
(Locomotive boilers) (Ptuskin, M.S.) (Sosnovenko, N.F.)

VLOKH, N.P., kand.tekhn.nauk; DEMENT'YEV, I.V.

Third Ural Scientific and Technical Conference of Miners. Gor. zhur.
no.3:70-71 Mr '63. (MIRA 16:4)

1. Ural'skiy filial Akademii nauk SSSR (for Vlokh). 2. Sverdlovskiy
gornyy institut (for Dement'yev).

MEL'NIKOV, N.V.; SLEDZYUK, P.Ye.; ZAV'YALOV, S.S.; BUNIN, A.I.;
VASIL'YEV, M.V.; NOVOZHILOV, M.G.; ZURKOV, P.E.; IL'IN, M.V.;
VILESOV, G.I.; POPOV, S.I.; SANDRIGAYLO, N.F.; SHILIN, A.N.;
ZUBRILOV, L.Ye.; TSIMBALENKO, L.N.; VLOKH, N.P.; OMEL'CHENKO, A.N.

Mikhail Lazarevich Rudakov, 1912-1964; an obituary. Gor.
zhur. no.9:78 S '64. (MIRA 17:12)

VLOKH, N.P., kand. tekhn. nauk; SLEPTSOV, M.N., inzh.

Using the shield mining system in copper mines in the Urals. Gor.
zhur. no.6:26-30 Je '64. (MIRA 17:11)

1. Institut gornogo dela, g. Sverdlovsk (for Vlokh). 2. Ural'skiy
nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti
Sverdlovsk (for Sleptsov).

VLOKH, N.P., kand.tekhn.nauk; KOLUPAYEV, P.I., gornyy tekhnik

Potentials for increasing labor productivity in mines of the
Pyshma Mining Administration. Gor. zhur. no.1:39-41 Ja '62.
(MIRA 15:7)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut
mednoy promyshlennosti, Sverdlovsk.
(Pyshma region (Sverdlovsk Province)—Mining engineering)

VLOKH, N.P., gornyy inzhener; MEKLER, L.S., gornyy inzhener.

Improved construction of flexible decks. Gor. zbur. no. 7:
61-62 J1 '56. (MLRA 9:9)

(Mining engineering)

VLOKH, N.P., gornyy inzhener.

Influence of direction in second mining on the character of caved
rock pressure. Gor.zhur. no.9:15-18 S '57. (MLBA 10:9)

1. Leningradskiy gornyy institut.
(Mining engineering)

VLOKH, N.P.; MOSHINSKIY, L.G.; BRUN, B.S.; ZOLOTAREV, M.A.;
PEPELYAYEV, B.I.; TAMGIN, V.S.

Eliminating cavities at the Pokrovskiy mine. Gor. zhur.
no. 12:73-74 D '65. (MIRA 18:12)

AUTHORS: Zheludev, I.S. and Vlokh, O.G. SOV/70-3-5-24/24
TITLE: The Electro-optical Effect in Crystals (Elektroopticheskiy
effekt v kristallakh)
PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 5, pp 639-651 (USSR)
ABSTRACT: General review, mostly of non-Russian work, of electro-
optical phenomena in crystals - a theme now under
investigation in the USSR.
There are 9 figures, 2 tables and 41 references, 7 Soviet,
6 German and 28 English.
ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography of the Ac.Sc.USSR)
SUBMITTED: July 11, 1958

Card 1/1

USCOMM-DC-60487

✓
ZHELUDEV, I.S.; BLOKH, O.G.

Electro-optical effect in crystals. Kristallografiia 3
no.5:639-651 '58. (MIRA 11:11)

1. Institut kristallografi AN SSSR.
(Crystals)

85090

S/070/60/005/003/014/024/XX
E132/E460

24,3600 (1106, 1114, 1144)

AUTHORS: Vlokh, O.G. and Zheludev, I.S.

TITLE: Changes in the Optical Properties of Crystals
Occurring on the Imposition of Electrical Fields
(The linear Electro-Optical Effect) 1/1

PERIODICAL: Kristallolografiya, 1960, Vol.5, No.3, pp.390-402

TEXT: By taking account of the changes of symmetry which arise on the application of an electric field along one of the more important directions in a crystal, the equation for the optical indicatrix has been calculated. This depends not only on the refractive indices but also on the magnitude of the electric field. The orientation of the new indicatrix with respect to the old is derived as a function of these variables. Tables give, for each of the 20 classes which can be piezoelectric and for several special directions of the applied field in each class, the symmetry class of the crystal in the applied field, the equations of the indicatrix in the coordinate system of the initial crystal class, the canonical equations for the indicatrix in the principal system of coordinates and the angles between the axes of crystalphysical and the principal systems of coordinates. The Card 1/2

85090

S/070/60/005/003/014/024/XX
E132/E460

Changes in the Optical Properties of Crystals Occurring on the Imposition of Electrical Fields (The Linear Electro-Optical Effect)

equations are all dependent on the field components, E_x , E_y and E_z . In general the indicatrix of a piezoelectric crystal is altered by the field, uniaxial crystals become biaxial and isotropic (cubic) crystals biaxial or uniaxial. Curie's or Neumann's principle can be applied to obtain the symmetry of the effects produced. There are 4 tables and 4 references: 3 Soviet and 1 English in Russian translation.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. I. Franko
(L'vov State University imeni I. Franko)

SUBMITTED: January 27, 1960

Card 2/2

VLOKH, O.G.

Dispersion of the electrooptical coefficient r_{63} in ammonium dihydrophosphate and potassium dihydrophosphate crystals. Kristallografiia 7 no.4:632-633 JI-Ag '62. (MIRA 15:11)

1. L'vovskiy gosudarstvennyy universitet imeni I.Franko.
(Ammonium metaphosphate--Optical properties)
(Potassium metaphosphate--Optical properties)

ZHELJDEV, I.S.; VLOKH, O.G.

Morphological symmetry of pentaerythrite crystals. Kristallografiia
7 no.5:784-785 S-O '62. (MIRA 15:12)

1. Institut kristallografii AN SSSR.
(Erythrite crystals)

45676

24,7000

S/070/63/008/001/008/024;
E132/E460

AUTHORS: Vlokh, O.G., Zheludev, I.S., Shamburov, V.A.

TITLE: The electro-optical effect in crystals of pentaerythritol $C(CH_2OH)_4$

PERIODICAL: Kristallografiya, v. 8, no. 1, 1963, 51-56

TEXT: For pentaerythritol, which belongs to the crystal class $\bar{4}$, crystals showing the growth pyramids 100 appear to have a two-fold axis. [Abstracter's note: The authors state that the crystals appear biaxial optically. This does not appear to be correct as this system must be uniaxial, but it may mean that the ellipsoid of revolution which represents the refractive indices requires two parameters to describe it and has two different axes.]

The optical indicatrix is described by the equation:

$$(a_o^2 + r_{12}E_y)x^2 + (b_o^2 + r_{22}E_y)y^2 + (c_o^2 + r_{32}E_y)z^2 + 2r_{52}E_yzx = 1$$

when an electric field E_y is applied along the y-axis.

This y-axis is the fourfold inversion axis for the crystal as a whole. a_o , b_o and c_o are the reciprocals of the principal

Card 1/3

S/O70/63/008/001/008/024
E132/E460

The electro-optical ...

refractive indices; r_{ij} are the electro-optical coefficients, 8 being non-zero for this cut. It follows that when an electric field is applied the indicatrix is deformed and rotates in the XZ plane through an angle θ_2 . This y-cut crystal was mounted between crossed Nicols and a beam of monochromatic light was passed through the system into a photomultiplier. The plate was adjusted to extinction and a high voltage was applied to the electrodes, the increase in transmitted light being measured. The increase resulted from the rotation of the indicatrix which could reach 22.5° if a field of 220 kV/cm were applied. The material has a high melting point (257°C) and behaves as a linear dielectric with a specific resistance of 10^{15} to 10^{12} ohm cm over the range 30 to 130°C in the absence of surface conductivity. The crystals are not hygroscopic and have a perfect 001 cleavage which corresponds to the y-cut used if it is reckoned that the growth pyramids of the form 101 give crystals of the class 2. The moduli were found to be

$$r_{52} = (4.38 \pm 0.13) \times 10^{-8} \text{ cgsu} \quad \text{and} \quad r_{32} - r_{12} = (2.09 \pm 0.13) \times 10^{-8} \text{ cgsu.}$$

Card 2/3